



Supplement 1

International Versions of the Background Questionnaires – Population 3

Overview

This supplement contains the international versions of the Population 3 background questionnaires and the calculator use survey students completed at the end of the test booklet:

- Section 1: Student Background Questionnaire (SQ3)
- Section 2: School Background Questionnaire (SCQ3)
- Section 3: Calculator Use Survey

Tables S1.1 and S1.2 list all of the international background variables corresponding to each of the student and school background questionnaire items. Table S1.1 also lists the variables from the calculator survey.

The international versions of the questionnaires were designed to provide an opportunity for individual countries to make modifications to some questions or response options in order to include the appropriate wording or options most consistent with their own national systems. In the international versions of the questionnaires, such questions contain instructions to NRCs to substitute the appropriate wording for their country and/or to modify or delete any inappropriate questions or options. These instructions were indicated in two ways in the questionnaires:

- 1) NRC NOTE:
- 2) <International Option> (indicating that the NRC was to substitute, if necessary, an appropriate national option that would retain the same basic interpretation as the international version)

Documentation of any national adaptations of the student and school background questionnaire items is included in Supplement 2 to provide the user with information required to evaluate the availability of internationally-comparable data for use in secondary analyses involving the TIMSS contextual variables.

1.1
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L mn n w D n
SQ3-1/1 CSBGBIRD

1.1 (C n n 1)

In n n n B n h n 3 n
nn l w

L	nn n	D n
SQ3-12/4	CSBGAFTR	What do your friends think you ought to do immediately after you finish secondary school?
SQ3-13A1	CSBSFIP1	Does your father think it is important for you to do well in science at school?
SQ3-13A2	CSBSMIP1	Does your mother think it is important for you to do well in science at school?
SQ3-13A3	CSBSRIP1	Do your friends think it is important for you to do well in science at school?
SQ3-13A4	CSBSIP1	Do you think it is important to do well in science at school?
SQ3-13B1	CSBMFIP2	Does your father think it is important for you to do well in mathematics at school?
SQ3-13B2	CSBMMIP2	Does your mother think it is important for you to do well in mathematics at school?
SQ3-13B3	CSBMRIP2	Do your friends think it is important for you to do well in mathematics at school?
SQ3-13B4	CSBMSIP2	Do you think it is important to do well in mathematics at school?
SQ3-13C1	CSBGFIP3	Does your father think it is important for you to do well in <language of test> at school?
SQ3-13C2	CSBGMIP3	Does your mother think it is important for you to do well in <language of test> at school?
SQ3-13C3	CSBGRIP3	Do your friends think it is important for you to do well in <language of test> at school?
SQ3-13C4	CSBGSIP3	Do you think it is important to do well in <language of test> at school?
SQ3-13D1	CSBGFIP4	Does your father think it is important for you to be good at sports?
SQ3-13D2	CSBGMIP4	Does your mother think it is important for you to be good at sports?
SQ3-13D3	CSBGRIP4	Do your friends think it is important for you to be good at sports?
SQ3-13D4	CSBGSIP4	Do you think it is important to be good at sports?
SQ3-14A	CSBGFEDU	Do you think it is important to be good at sports?

1.1 (C n n 3)
In n n n B n h n 3 n
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L	nn	D n
SQ3-31E	CSBMDO05	In your mathematics lessons, how often are you asked to solve equations?
SQ3-31F	CSBMDO06	In your mathematics lessons, how often are you asked to practice computational skills?
SQ3-31G	CSBMDO07	In your mathematics lessons, how often are you asked to apply models to data?
SQ3-31H	CSBMDO08	In your mathematics lessons, how often are you asked to memorize rules and procedures?
SQ3-31I	CSBMDO09	In your mathematics lessons, how often are you asked to apply mathematics to everyday problems?
SQ3-31J	CSBMDO10	In your mathematics lessons, how often are you asked to copy notes from the board?
SQ3-31K	CSBMDO11	In your mathematics lessons, how often are you asked to use computers to solve exercises or problems?
SQ3-31L	CSBMDO12	In your mathematics lessons, how often are you asked to watch the teacher demonstrate how to do mathematics problems or procedures?
SQ3-31M	CSBMDO13	In your mathematics lessons, how often are you asked to begin your homework before the class ends?
SQ3-32	CSBMTXBK	Do you use a textbook in your mathematics class?
SQ3-32A	CSBMTXN1	Do you use <country specific text> in your mathematics class?
SQ3-32B	CSBMTXN2	Do you use <country specific text> in your mathematics class?
SQ3-32C	CSBMTXN3	Do you use <country specific text> in your mathematics class?
SQ3-32D	CSBMTXN4	Do you use <country specific text> in your mathematics class?
SQ3-32E	CSBMTXN5	Do you use <country specific text> in your mathematics class?
SQ3-33	CSBMHMWK	How often is mathematics homework assigned to you?
SQ3-34A	CSBSCOU1	Are you currently taking physics?
SQ3-34B	CSBSCOU2	Are you currently taking chemistry?
SQ3-34C	CSBSCOU3	Are you currently taking biology?
SQ3-34D	CSBSCOU4	Are you currently taking earth science?
SQ3-34E	CSBSCOU5	Are you currently taking any other science course?
SQ3-35A	CSBSQUES	For which science subject are you completing questions 36 and 37?
SQ3-35B	CSBSCLAS	How many classes do you usually have each week for that course, including lab. work?
SQ3-35C	CSBSTIME	How many minutes are there in each class for this course?
SQ3-36A	CSBSDO01	In your physics (or science) lessons, how often are you asked to explain the reasoning behind an idea?
SQ3-36B	CSBSDO02	In your physics lessons, how often are you asked to represent and analyze relationships using tables, charts, or graphs?
SQ3-36C	CSBSDO03	In your physics lessons, how often are you asked to work on problems for which there is no obvious method of solution?
SQ3-36D	CSBSDO04	In your physics lessons, how often are you asked to write explanations about what was observed and why it happened?
SQ3-36E	CSBSDO05	In your physics lessons, how often are you asked to put events/objects in order and give a reason for the organization?
SQ3-36F	CSBSDO06	In your physics lessons, how often are you asked to apply models to data?
SQ3-36G	CSBSDO07	In your physics lessons, how often are you asked to apply physics to everyday problems?
SQ3-36H	CSBSDO08	In your physics lessons, how often are you asked to conduct laboratory experiments?
SQ3-36I	CSBSDO09	In your physics lessons, how often are you asked to collect and organize data in the classroom or laboratory?
SQ3-36J	CSBSDO10	In your physics lessons, how often are you asked to go on a field trip to collect data?
SQ3-36K	CSBSDO11	In your physics lessons, how often are you asked to copy notes from the board?
SQ3-36L	CSBSDO12	In your physics lessons, how often are you asked to use computers to solve exercises or problems?
SQ3-36M	CSBSDO13	In your physics lessons, how often are you asked to watch the teacher demonstrate scientific concepts?
SQ3-36N	CSBSDO14	In your physics lessons, how often are you asked to begin your homework before the class ends?
SQ3-37	CSBSTXBK	Do you use a textbook in your physics (or science) class?
SQ3-37A	CSBSTXN1	Do you use <country specific text> in your physics (or science) class?

1.1 (C n n 4)
In In n n B n h n3 n
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nn

1.2
In **In** **n** **n** **B** **n** **h** **n** **3** **h**
nn **l** **w**

D **n**

SCQ3-1	CCBGCOMM	In what type of community is your school located?
SCQ3-2A	CCBGGRPK	Is Pre-kindergarten found in your school?
SCQ3-2B	CCBGGRK	Is Kindergarten found in your school?
SCQ3-2C	CCBGGR1	Is Grade 1 found in your school?
SCQ3-2D	CCBGGR2	Is Grade 2 found in your school?
SCQ3-2E	CCBGGR3	Is Grade 3 found in your school?
SCQ3-2F	CCBGGR4	Is Grade 4 found in your school?
SCQ3-2G	CCBGGR5	Is Grade 5 found in your school?
SCQ3-2H	CCBGGR6	Is Grade 6 found in your school?
SCQ3-2I	CCBGGR7	Is Grade 7 found in your school?
SCQ3-2J	CCBGGR8	Is Grade 8 found in your school?
SCQ3-2K	CCBGGR9	Is Grade 9 found in your school?
SCQ3-2L	CCBGGR10	Is Grade 10 found in your school?
SCQ3-2M	CCBGGR11	Is Grade 11 found in your school?
SCQ3-2N	CCBGGR12	Is Grade 12 found in your school?
SCQ3-2O	CCBGGR13	Is Grade 13 found in your school?
SCQ3-3A	CCBGFTE1	How many principals are on the staff of your school? (FTE)
SCQ3-3B	CCBGFTE2	How many assistant principals are on the staff of your school? (FTE)
SCQ3-3C	CCBGFTE3	How many department heads are on the staff of your school? (FTE)
SCQ3-3D	CCBGFTE4	How many classroom teachers are on the staff of your school? (FTE)
SCQ3-3E	CCBGFTE5	How many teacher aides are on the staff of your school? (FTE)
SCQ3-4A	CCBGFTTE	How many individual full-time teachers are there in your school?
SCQ3-4B	CCBGPTTE	How many individual part-time teachers are there in your school?
SCQ3-5	CCBGTE5Y	What percentage of the teachers have been at your school for 5 or more years?
SCQ3-6	CCBMNTEA	How many of the teachers in your school teach the most advanced mathematics?
SCQ3-7A	CCBMPTTE1	What percentage of the most advanced mathematics teachers are assigned all of their teaching load in mathematics?
SCQ3-7B	CCBMPTTE2	What percentage of the most advanced mathematics teachers are assigned at least half but not all of their teaching load in mathematics?
SCQ3-7C	CCBMPTTE3	What percentage of the most advanced mathematics teachers are assigned less than half of their teaching load in mathematics?
SCQ3-8	CCBPNTTEA	

1.2 (C n n 1)
In n n n B n h n 3 h
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L	nn n	D n
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- SCQ3-12G CCBGST07 Is your school's instructional capacity affected by inadequacy of instructional space?
- SCQ3-12H CCBGST08 Is your school's instructional capacity affected by inadequacy of special equipment for handicapped students?
- SCQ3-12I CCBMST09 Is your school's instructional capacity affected by inadequacy of computers for mathematics instruction?
- SCQ3-12J CCBMST10 Is your school's instructional capacity affected by inadequacy of computer software for mathematics instruction?
- SCQ3-12K CCBMST11 Is your school's instructional capacity affected by inadequacy of calculators for mathematics instruction?

SOQ3-12GC5BMST09

CCBMST09, who ha 12homty a.1sponsib

1.2 (Continued)

Injury and Abuse

Item	Code	Description
SCQ3-17KA	CCBGUO11	How often does administration or staff have to deal with physical injury to students caused by other students?
SCQ3-17KB	CCBGUS11	In your school, how severe a problem is physical injury of other students?
SCQ3-17LA	CCBGUO12	How often does administration or staff have to deal with intimidation of teachers or staff by students?
SCQ3-17LB	CCBGUS12	In your school, how severe a problem is intimidation or verbal abuse of teachers or staff?
SCQ3-17MA	CCBGUO13	How often does school administration or staff have to deal with physical injury of staff caused by students?
SCQ3-17MB	CCBGUS13	In your school, how severe a problem is physical injury to teachers or staff?
SCQ3-17NA	CCBGUO14	How often does school administration or staff have to deal with tobacco use/possession?
SCQ3-17NB	CCBGUS14	In your school, how severe a problem is tobacco use/possession?
SCQ3-17OA	CCBGUO15	How often does school administration or staff have to deal with alcohol use/possession?
SCQ3-17OB	CCBGUS15	In your school, how severe a problem is alcohol use/possession?
SCQ3-17PA	CCBGUO16	How often does school administration or staff have to deal with illegal drug use/possession?
SCQ3-17PB	CCBGUS16	In your school, how severe a problem is illegal drug use/possession?
SCQ3-17QA	CCBGUO17	How often does school administration or staff have to deal with weapon use/possession?
SCQ3-17QB	CCBGUS17	In your school, how severe a problem is weapon use/possession?
SCQ3-17RA	CCBGUO18	How often does school administration or staff have to deal with inappropriate sexual behavior?
SCQ3-17RB	CCBGUS18	In your school, how severe a problem is inappropriate sexual behavior?
SCQ3-18A	CCBGUFC1	How important is academic performance in deciding which track <target grade> students follow?
SCQ3-18B	CCBGUFC2	How important is performance on a standardized test in deciding which track <target grade> students follow?
SCQ3-18C	CCBGUFC3	How important is performance on an entrance examination in deciding which track <target grade> students follow?
SCQ3-18D	CCBGUFC4	How important is performance on an oral examination in deciding which track <target grade> students follow?
SCQ3-18E	CCBGUFC5	How important are teacher recommendations in deciding which track <target grade> students follow?
SCQ3-18F	CCBGUFC6	How important are parental wishes in deciding which track <target grade> students follow?
SCQ3-18G	CCBGUFC7	How important are the student's own wishes in deciding which track <target grade> students follow?
SCQ3-18H	CCBGUFC8	How important are curricular requirements in deciding which track <target grade> students follow?
SCQ3-19A1	CCBGBENR	What is the total school enrollment of boys?
SCQ3-19A2	CCBGGENR	What is the total school enrollment of girls?
SCQ3-19B	CCBGABST	On a typical school day, what percentage of students are absent from school for any reason?
SCQ3-19C	CCBGENDY	About what percentage of students who begin the year in your school also finish the year in your school?
SCQ3-19D	CCBGNSF	About what percentage of the students in your school transfer into your school after the beginning of the school year?
SCQ3-20A	CCBGCOM1	Is track #1 available in your school?
SCQ3-20B	CCBGCOM2	Is track #2 available in your school?
SCQ3-20C	CCBGCOM3	Is track #3 available in your school?
SCQ3-20D	CCBGCOM4	Is track #4 available in your school?
SCQ3-20E	CCBGCOM5	Is track #5 available in your school?
SCQ3-20F	CCBGCOM6	Is track #6 available in your school?
SCQ3-21	CCBGPRGM	Is the graduation requirement the same for <target grade> students in every track?
SCQ3-21A#1	CCBGPG1A	In track #1, are students required to pass a comprehensive examination in order to graduate?
SCQ3-21A#2	CCBGPG2A	In track #2 are students required to pass a comprehensive examination in order to graduate?
SCQ3-21A#3	CCBGPG3A	In track #3 are students required to pass a comprehensive examination in order to graduate?
SCQ3-21A#4	CCBGPG4A	In track #4 are students required to pass a comprehensive examination in order to graduate?
SCQ3-21A#5	CCBGPG5A	In track #5 are students required to pass a comprehensive examination in order to graduate?
SCQ3-21A#6	CCBGPG6A	In track #6 are students required to pass a comprehensive examination in order to graduate?

1.2 (Continued)

In this section, the following information is provided:

Item	Code	Description
SCQ3-21B#1	CCBGPG1B	In track #1, are students required to pass an examination in mathematics in order to graduate?
SCQ3-21B#2	CCBGPG2B	In track #2 are students required to pass an examination in mathematics in order to graduate?
SCQ3-21B#3	CCBGPG3B	In track #3 are students required to pass an examination in mathematics in order to graduate?
SCQ3-21B#4	CCBGPG4B	In track #4 are students required to pass an examination in mathematics in order to graduate?
SCQ3-21B#5	CCBGPG5B	In track #5 are students required to pass an examination in mathematics in order to graduate?
SCQ3-21B#6	CCBGPG6B	In track #6 are students required to pass an examination in mathematics in order to graduate?
SCQ3-21C#1	CCBGPG1C	In track #1, are students required to pass an examination in science in order to graduate?
SCQ3-21C#2	CCBGPG2C	In track #2 are students required to pass an examination in science in order to graduate?
SCQ3-21C#3	CCBGPG3C	In track #3 are students required to pass an examination in science in order to graduate?
SCQ3-21C#4	CCBGPG4C	In track #4 are students required to pass an examination in science in order to graduate?
SCQ3-21C#5	CCBGPG5C	In track #5 are students required to pass an examination in science in order to graduate?
SCQ3-21C#6	CCBGPG6C	In track #6 are students required to pass an examination in science in order to graduate?
SCQ3-21D#1	CCBGPG1D	In track #1 are students required to maintain a certain standard of performance (e.g. GPA) in order to graduate?
SCQ3-21D#2	CCBGPG2D	In track #2 are students required to maintain a certain standard of performance (e.g. GPA) in order to graduate?
SCQ3-21D#3	CCBGPG3D	In track #3 are students required to maintain a certain standard of performance (e.g. GPA) in order to graduate?
SCQ3-21D#4	CCBGPG4D	In track #4 are students required to maintain a certain standard of performance (e.g. GPA) in order to graduate?
SCQ3-21D#5	CCBGPG5D	In track #5 are students required to maintain a certain standard of performance (e.g. GPA) in order to graduate?
SCQ3-21D#6	CCBGPG6D	In track #6 are students required to maintain a certain standard of performance (e.g. GPA) in order to graduate?
SCQ3-21E#1	CCBGPG1E	In track #1 are students required to accumulate a certain amount of credit/coursework in order to graduate?
SCQ3-21E#2	CCBGPG2E	In track #2 are students required to accumulate a certain amount of credit/coursework in order to graduate?
SCQ3-21E#3	CCBGPG3E	In track #3 are students required to accumulate a certain amount of credit/coursework in order to graduate?
SCQ3-21E#4	CCBGPG4E	In track #4 are students required to accumulate a certain amount of credit/coursework in order to graduate?
SCQ3-21E#5	CCBGPG5E	In track #5 are students required to accumulate a certain amount of credit/coursework in order to graduate?
SCQ3-21E#6	CCBGPG6E	In track #6 are students required to accumulate a certain amount of credit/coursework in order to graduate?
SCQ3-21F#1	CCBGPG1F	In track #1 are students required to attend a specified number of years in order to graduate?
SCQ3-21F#2	CCBGPG2F	In track #2 are students required to attend a specified number of years in order to graduate?
SCQ3-21F#3	CCBGPG3F	In track #3 are students required to attend a specified number of years in order to graduate?
SCQ3-21F#4	CCBGPG4F	In track #4 are students required to attend a specified number of years in order to graduate?
SCQ3-21F#5	CCBGPG5F	In track #5 are students required to attend a specified number of years in order to graduate?
SCQ3-21F#6	CCBGPG6F	In track #6 are students required to attend a specified number of years in order to graduate?
SCQ3-21G#1	CCBGPG1G	In track #1 are students required to reach a certain age in order to graduate?
SCQ3-21G#2	CCBGPG2G	In track #2 are students required to reach a certain age in order to graduate?
SCQ3-21G#3	CCBGPG3G	In track #3 are students required to reach a certain age in order to graduate?
SCQ3-21G#4	CCBGPG4G	In track #4 are students required to reach a certain age in order to graduate?
SCQ3-21G#5	CCBGPG5G	In track #5 are students required to reach a certain age in order to graduate?
SCQ3-21G#6	CCBGPG6G	In track #6 are students required to reach a certain age in order to graduate?
SCQ3-21H#1	CCBGPG1H	In track #1 are students required to pass an oral exam in order to graduate?
SCQ3-21H#2	CCBGPG2H	In track #2 are students required to pass an oral exam in order to graduate?
SCQ3-21H#3	CCBGPG3H	In track #3 are students required to pass an oral exam in order to graduate?
SCQ3-21H#4	CCBGPG4H	In track #4 are students required to pass an oral exam in order to graduate?

1.2 (C n n 5)
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- SCQ3-21H#5 CCBGPG5H In track #5 are students required to pass an oral exam in order to graduate?
- SCQ3-21H#6 CCBGPG6H In track #6 are students required to pass an oral exam in order to graduate?
- SCQ3-22 CCBGTRAK Is the instructional time the same for <target grade> students in every track at your school?
- SCQ3-22A#1 CCBGTK1A

1.2 (C n n 6)
 In In n n B n h n 3 h
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SCQ3-23B#4	CCBGITM4		How many minutes is a typical instructional period for track #4?
SCQ3-23B#5	CCBGITM5		How many minutes is a typical instructional period for track #5?
SCQ3-23B#6	CCBGITM6		How many minutes is a typical instructional period for track #6?

Section 1

Student Background Questionnaire (SQ3)



Identification Label

School

Class

Student

IEA Third International Mathematics and Science Study

Student Questionnaire

Population 3

TIMSS Study Center
Boston College
Chestnut Hill, MA 02167
USA

(Institute Address)

Doc. Ref.: ICC909/NRC442
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GENERAL DIRECTIONS

In this booklet, you will find questions about yourself. Some questions ask for facts while other questions ask for your opinion.

Read each question carefully and respond as accurately and carefully as possible. You may ask for help if you do not understand something or are not sure how to respond.

Some of the questions will be followed by a few possible choices indicated with a letter next to or below it. For these questions, circle the letter next to or below your choice as shown in Example 1.

Example 1

	Yes	No
1. I attend school	A	B

The letter "A" has been circled because you attend school.

If you decide to change your response to a question, put an "X" over your first choice and then put a circle around your new choice as shown in Example 2.

Example 2

	<i>strongly agree</i>	<i>agree</i>	<i>disagree</i>	<i>strongly disagree</i>
2. I like rock music.	A	B	C	D

For other questions you will be asked to write a number or date in the space provided in your booklet. For these questions, you may use words and numbers in your answers. When you write, please be sure that your handwriting is clear.

11. How far in school did your mother and father go?*Circle ONE letter in each column.*

	<i>Mother</i>	<i>Father</i>
<finished primary school>	A	A
<some secondary school>	B	B
<finished secondary school>	C	C
<some vocational/technical education after secondary school>	D	D
<some university>	E	E
<finished university>	F	F
I don't know	G	G

12. What do each of the following people think you ought to do immediately after you finish <secondary school>?*Circle ONE letter, A, B, C, D, or E, in each column.*

	<i>Father</i>	<i>Mother</i>	<i>Teachers</i>	<i>Friends</i>
a) go to university full time	A	A	A	A
b) get a full-time job	B	B	B	B
c) <enter trade school or apprenticeship> .	C	C	C	C
d) enter military service	D	D	D	D
e) other	E	E	E	E

13. Do each of the following people think it is important for you to...*Circle Y for "Yes", or N for "No", in every column in each line.*

	<i>Father</i>	<i>Mother</i>	<i>Friends</i>	<i>Yourself</i>
a) do well in science at school?	Y N	Y N	Y N	Y N
b) do well in mathematics at school?	Y N	Y N	Y N	Y N
c) do well in <language of test> at school?	Y N	Y N	Y N	Y N
d) be good at sports?	Y N	Y N	Y N	Y N

14a. After <secondary school>, do you intend to continue your education?*Circle either A or B.*

Yes A

No B

If No, skip the rest of this question and go to question number 15.**If Yes, what form of further education do you intend to take?***Circle either A or B for each line.*

	Yes	No
a) <vocational or technical courses at a trade or business school>	A	B
b) <academic courses at a junior or community college>	A	B
c) <vocational or technical subjects at a junior or community college>	A	B
d) attend a <four-year college or university>	A	B
e) other	A	B

15. During the week, how much time before or after school do you usually spend...

Circle ONE letter, A, B, C, D, or E, for each line.

	<i>less</i>			<i>more</i>
<i>no</i>	<i>than 1</i>	<i>1-2</i>	<i>3-5</i>	<i>than 5</i>
<i>time</i>	<i>hours</i>	<i>hours</i>	<i>hours</i>	<i>hours</i>

- a) taking <extra lessons/cramming school>
ae]h95 for B, C, D, or Eo97 Tw [9j, for each line.time <ext9lessons/cramming school>

17. How often did any of these things happen last month in school?

Circle ONE letter, A, B, C, or D, for each line.

	<i>never</i>	<i>once or twice</i>	<i>3-4 times</i>	<i>5 times or more</i>
a) I skipped a class.	A	B	C	D
b) Something of mine was stolen.	A	B	C	D
c) I was threatened by another student.	A	B	C	D
d) Some of my friends skipped classes.	A	B	C	D
e) Some of my friends had things stolen.	A	B	C	D
f) Some of my friends were threatened by other students.	A	B	C	D

18. What do you think about mathematics?

Circle ONE letter, A, B, C, or D, for each line.

	<i>strongly agree</i>	<i>agree</i>	<i>disagree</i>	<i>strongly disagree</i>
a) I enjoy learning mathematics.	A	B	C	D
b) Mathematics is boring.	A	B	C	D
c) Mathematics is an easy subject.	A	B	C	D
d) Mathematics is important to everyone's life.	A	B	C	D
e) I would like a job that involved using mathematics	A	B	C	D

19. How much do you like...*Circle ONE letter, A, B, C, D, or E, for each line.*

	<i>dislike a lot</i>	<i>dislike</i>	<i>like</i>	<i>like a lot</i>	<i>have not studied</i>
a) mathematics?	A	B	C	D	E
b) biological science?	A	B	C	D	E
c) chemistry?	A	B	C	D	E
d) earth science?	A	B	C	D	E
e) physics?	A	B	C	D	E

20. To do well in mathematics at school a person needs...*Circle ONE letter, A, B, C, or D, for each line.*

	<i>strongly agree</i>	<i>agree</i>	<i>disagree</i>	<i>strongly disagree</i>
a) lots of natural <talent/ability>.	A	B	C	D
b) good luck.	A	B	C	D
c) lots of hard work studying at home.	A	B	C	D
d) to memorize the textbook or notes.	A	B	C	D

21. To do well in the sciences at school a person needs...*Circle ONE letter, A, B, C, or D, for each line.*

	<i>strongly agree</i>	<i>agree</i>	<i>disagree</i>	<i>strongly disagree</i>
a) lots of natural <talent/ability>.	A	B	C	D
b) good luck.	A	B	C	D
c) lots of hard work studying at home.	A	B	C	D
d) to memorize the textbook or notes.	A	B	C	D

22. How well have you usually done in mathematics and the sciences at school?*Circle ONE letter, A, B, C, or D, for each line.*

- | | <i>strongly
agree</i> | <i>agree</i> | <i>disagree</i> | <i>strongly
disagree</i> |
|---|---------------------------|--------------|-----------------|------------------------------|
| a) I have usually done well in mathematics. | A | B | C | D |
| b) I have usually done well in the sciences. | A | B | C | D |

23. How often do you use any of the following at school, home or any other place?*Circle ONE letter, A, B, C, or D, for each line.*

- | | <i>daily</i> | <i>weekly</i> | <i>monthly</i> | <i>rarely or
never</i> |
|--|--------------|---------------|----------------|----------------------------|
| a) calculator. | A | B | C | D |
| b) desktop computer | A | B | C | D |
| c) computer terminal | A | B | C | D |
| d) video tapes or video disc machine | A | B | C | D |
| e) electronic mail | A | B | C | D |

NRC NOTE: This question may be omitted if your system has tracks but the information is known from the sampling design or

NRC Note: Countries must provide a list of the course options available to students in subject-matter areas specified in Questions 25 to 29. Courses should include those used to define the specialist groups in mathematics and physics for Population 3. Questions 25-29 may be omitted if this information is known from the sampling design, or is otherwise available.

25. What is the most advanced course that you have taken in Mathematics?

Circle ONE letter, A, B, C, or D.

- <Country specific> A
 <Country specific> B
 <Country specific> C
 <Country specific> D

26. What is the most advanced course that you have taken in Physics?

Circle ONE letter, A, B, or C.

- I never studied Physics A
 <Country specific> B
 <Country specific> C

27. What is the most advanced course that you have taken in Chemistry?

Circle ONE letter, A, B, or C.

- I never studied Chemistry A
 <Country specific> B
 <Country specific> C

28. What is the most advanced course that you have taken in Biology?

Circle ONE letter, A, B, or C.

- I never studied Biology A
<Country specific> B
<Country specific> C
-

29. What is the most advanced course that you have taken in <Earth Science/ Geography>?

Circle ONE letter, A, B, or C.

- I never studied <Earth Science/Geography> A
<Country specific> B
<Country specific> C
-

30a. Are you currently taking a mathematics course?

Circle either A or B.

- Yes A
No B

30b. If so, how many mathematics <classes/periods> do you usually have each week?

Write in the number of periods.

30c. How many minutes are there in each mathematics <class/period>?

Write in the number of minutes.

Complete items 31 and 32 with respect to the mathematics course you are currently taking. If you are not currently taking a mathematics course, complete these items with respect to the most recent mathematics course you have taken.

31. In your mathematics lessons, how often are you asked to do the following?

Circle ONE letter, A, B, C, or D, for each line.

	<i>never or almost never</i>	<i>some lessons</i>	<i>most lessons</i>	<i>every lesson</i>
a) Explain the reasoning behind an idea.	A	B	C	D
b) Represent and analyze relationships using tables, charts, or graphs.	A	B	C	D
c) Work on problems for which there is no immediately obvious method of solution.	A	B	C	D
d) Write equations to represent relationships.	A	B	C	D
e) Solve equations.	A	B	C	D
f) Practice computational skills.	A	B	C	D
g) Apply models to data.	A	B	C	D
h) Memorize rules and procedures.	A	B	C	D
i) Apply mathematics to everyday problems.	A	B	C	D
j) Copy notes from the <board>.	A	B	C	D
k) Use computers to solve exercises or problems	A	B	C	D
l) Watch the teacher demonstrate how to do mathematical problems or procedures.	A	B	C	D
m) Begin your homework before the class ends.	A	B	C	D

NRC Note: For Questions 32a—32e: Insert the titles of the five most widely used mathematics textbooks. If possible, list those used in the TIMSS curriculum analysis.

33. How often is mathematics homework assigned to you?

Circle one letter, A, B, C, D or E.

never A

34. Are you currently taking any of the following science courses?

Circle A or B for each line.

	<i>Yes</i>	<i>No</i>
a) Physics	A	B
b) Chemistry	A	B
c) Biology	A	B
d) Earth Science	A	B
e) Other Science Course	A	B

Complete items 36 and 37 with respect to the physics course you are currently taking. If you are not currently taking a

36. In your Physics (or science) lessons, how often are you asked to do the following?

Circle ONE letter, A, B, C, or D, for each line.

- | | <i>never or
almost
never</i> | <i>some
lessons</i> | <i>most
lessons</i> | <i>every
lesson</i> |
|---|--------------------------------------|-------------------------|-------------------------|-------------------------|
| a) Explain the reasoning behind an idea. | A | B | C | D |
| b) Represent and analyze relationships using tables,
charts, or graphs. | A | B | C | D |
| c) Work on problems for which there is no
immediately obvious method of solution. | A | B | C | D |
| d) Write explanations about what was observed | | | | |

NRC Note: For Questions 37a—37e: Insert the titles of the five most widely used science textbooks. If possible, list those used in the TIMSS curriculum analysis.

37. Do you use a textbook in your physics (or science) class?

Circle either A or B.

YES A
 NO B

Circle A or B for each line.

If yes, do you use the following textbooks?

	<i>Yes</i>	<i>No</i>
a) <COUNTRY SPECIFIC TEXT>	A	B
b) <COUNTRY SPECIFIC TEXT>	A	B
c) <COUNTRY SPECIFIC TEXT>	A	B
d) <COUNTRY SPECIFIC TEXT>	A	B
e) <COUNTRY SPECIFIC TEXT>	A	B

38. How often is Physics (or science) homework assigned to you?

Circle ONE letter, A, B, C, D, or E.

never A
 less than once a week B
 once or twice a week C
 3 or 4 times a week D
 every day E

NRC Note: Questions 39 and 40 are optional.

39. Are you repeating the <grade level> in which you are currently enrolled?

Circle either A or B.

YES A

NO B

40. Have you ever completed any other final-year <tracks/programs of study>?

Circle either A or B.

YES A

NO B

If yes, please specify: _____

STOP

There are no more questions on this booklet

If you have finished answering this booklet before the time is over then you may go back and review your answers. Thank you for taking the time to answer these questions carefully.

Seecti



2. Which of the following grade levels are found in your school?

<List only country-specific grades and their appropriate designations.>

*Check **one** box in each line.*

- | | <i>Yes</i> | <i>No</i> |
|-----------------------------|--------------------------|--------------------------|
| a) <Pre-kindergarten> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <Kindergarten> | | |

3. How many of the following are on the staff of your school?

For each type of position listed, provide the number of full-time equivalents (FTEs) present in your school. For example, one full-time (100% time) teacher represents 1 FTE; one part-time (50% time) teacher represents .5 FTE. A staff member who teaches 50% time and functions as an assistant principal for the remaining 50% represents .5 FTE teacher and .5 FTE assistant principal. Write in 0 (zero) if there are no such positions in your school. If this information is not readily available, please make the best estimate possible.

	Number of FTEs
a) Principals	_____
b) Assistant principals	_____
c) Department heads	_____
d) <Classroom Teachers>	_____
e) Teacher aides	_____

4a. How many individual full-time teachers are there in your school?

*Write in a **number**. Write 0 (zero) if none*

4b. How many individual part-time teachers are there in your school?

*Write in a **number**. If this information is not readily available, please make the best estimate possible.*

5. What percentage of the teachers have been at your school for 5 or more years?

*Please indicate a **percentage**. Write 0 (zero) if none. If this information is not readily available, please make the best estimate possible.*

_____%

6. How many of the teachers in your school teach <the most advanced mathematics>?

*Write a number.
Write 0 (zero) if none*

7. What percentage of <the most advanced mathematics> teachers are assigned...

Please indicate a percentage. Write 0 (zero) if none.

- a) all of their teaching load in mathematics _____%
- b) at least half but not all of their teaching load in mathematics _____%
- c) less than half of their teaching load in mathematics _____%

8. How many of the teachers in your school teach <the most advanced Physics>?

*Write a number.
Write 0 (zero) if none*

9. What percentage of <the most advanced Physics> teachers are assigned...

- a) all of their teaching load in Physics _____%
- b) at least half but not all of their teaching load in Physics _____%
- c) less than half of their teaching load in Physics _____%

10. What percentage of <TARGET GRADE> mathematics teachers have university level certification in mathematics?

Please indicate a percentage. Write 0 (zero) if none.

_____%

11. What percentage of <TARGET GRADE> science teachers have university level certification in a science subject?

Please indicate a percentage. Write 0 (zero) if none.

_____%

- 12. In your opinion, is your school's capacity to provide instruction affected by a shortage or inadequacy of any of the following?**

Check one

14. With regard to your school, who has primary responsibility for each of the following activities?

Check one box in each line.

	<i>not a school responsibility</i>	<i><school's governing board></i>	<i>principal</i>	<i><department head></i>	<i>teachers</i>
a) Hiring teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Establishing disciplinary policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Establishing student grading policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Formulating the school budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Purchasing supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Placing students in classes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Assigning teachers to classes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Determining which textbooks are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 15. How much influence do each of the following have in determining the curriculum that is taught in your school?**

Check one

18. How important are each of the following factors in deciding which <PROGRAM/TRACK> <TARGET-GRADE> students follow?

Check one box in each line.

	<i>not important</i>	<i>somewhat important</i>	<i>moderately important</i>	<i>very important</i>	<i>not applicable</i>
a) academic performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) performance on a standardized test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) performance on an entrance examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) performance on an oral examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) teacher recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) parental wishes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) the student's own wishes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) curricular requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. The students in your school:

Write in the answer for each of the following. Write 0 (zero) if there are none.

	<i>boys</i>	<i>girls</i>
a) What is the total school enrollment (number of students)?	_____	_____
b) On a typical school day, what percentage of students are absent from school for any reason?		_____ %
c) About what percentage of students who begin the year in your school also finish the year in your school?		_____ %
d) About what percentage of the students in your school transfer into your school after the beginning of the school year?		_____ %

NRC NOTE: There are 3 different approaches to complete item 20 with country-specific information. The approach you choose is dependent upon your system (i.e., whether or not tracks exist) and the type of sampling plan (i.e., special case in which one type of track is defined as a sampling strata). These three approaches are:

- 1) If your system has no tracks, list here the mathematics and science courses available to different groups of students including those that define the specialist groups for Population 3.
- 2) If your schools contain different tracks, list here the major tracks. The tracks which you list must include those which define the specialist groups in mathematics and physics for Population 3 in your system.
- 3) In the special case in which one vocational track has been defined as a sampling strata and schools are then randomly selected, different versions of the School Questionnaire may be prepared for each of the sampled tracks/strata. List here the <course offerings> appropriate for the specific sampled track/strata.

See Accompanying Notes for further detail.

20. Which of the following <programs/tracks/course combinations> are available to <TARGET GRADE> students in your school?

Check one box in each line.

- | | <i>Yes</i> | <i>No</i> |
|-----------------------------|--------------------------|--------------------------|
| a) <PROGRAM/TRACK> #1 | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <PROGRAM/TRACK> #2 | <input type="checkbox"/> | <input type="checkbox"/> |
| c) <PROGRAM/TRACK> #3 | <input type="checkbox"/> | <input type="checkbox"/> |
| d) <PROGRAM/TRACK> #4 | <input type="checkbox"/> | <input type="checkbox"/> |
| e) <PROGRAM/TRACK> #5 | <input type="checkbox"/> | <input type="checkbox"/> |
| f) <PROGRAM/TRACK> #6 | <input type="checkbox"/> | <input type="checkbox"/> |

21. In order to <graduate/finish school> students are required to ...

If the graduation requirement is the same for <TARGET GRADE> students in every <PROGRAM/TRACK> at your school, check the box to the right and respond only to questions under the column for <PROGRAM/TRACK> #1

Check as many as apply in each

column.

	<PROGRAM/TRACK>					
	#1	#2	#3	#4	#5	#6
a) pass a comprehensive (multi-subject) examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) pass an examination in mathematics ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) pass an examination in science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) maintain a certain standard of performance (e.g., grade point average)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) accumulate a certain amount of credit/course work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) attend a specified number of years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) reach a certain age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) pass an oral examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**THANK YOU for your thought, time, and effort
in answering these questions**

CALCULATOR USE SURVEY

1. Did you use a calculator in answering any of the questions in this booklet?
 - A. YES
 - B. NO

If you did not use a calculator, then you have finished this survey. Thank you. If you used a calculator, please answer each of the following questions.

2. The calculator I used was...
 - A. Simple – basic functions only (+, -, ×, ÷, % or $\sqrt{\quad}$), without functions like log, sin, cos.
 - B. Scientific – basic functions (+, -, ×, ÷, % or $\sqrt{\quad}$) and also functions like log, sin, cos.
 - C. Programmable – scientific, also able to store and run short programs
 - D. Graphic – scientific or programmable, also able to display some graphs
3. In doing the questions I estimate that I used the calculator
 - A. very little (for fewer than 5 questions).
 - B. somewhat (for between 5 and 10 questions).
 - C. quite a lot (for more than 10 questions).
4. The brand name and model of the calculator I used is:

Thank you for taking the time to answer these questions carefully.